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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,799	01/10/2002	Erwin Roy John	50124/00303	5663
30636	7590	11/15/2005		
FAY KAPLUN & MARCIN, LLP 150 BROADWAY, SUITE 702 NEW YORK, NY 10038			EXAMINER NASSER, ROBERT L	
			ART UNIT	PAPER NUMBER
			.3736	

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/045,799

Applicant(s)

JOHN ET AL.

Examiner

Robert L. Nasser

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 45-55, 59, 65, 66 and 68 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 45-47 is/are allowed.
6) ☒ Claim(s) 48-55, 59, 65, 66 and 68 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 48-50 and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee 4454886 in view of in view of Zimmerman et al 5279305 and Devito. Lee shows a device with an active electrode 14 producing EEG signals, a filter 18 producing signals in a predetermined frequency range (1-60hz), and a tone generator producing an audio output, generally music, corresponding to the signal. It does not have the connection means or the telemetry signal. Zimmerman et al teaches that it is desirable to have the electrode arrangement wirelessly communicate with the processor to allow the user freedom of movement during measurement. Hence, it would have been obvious to modify Lee to use wireless communication, so as to allow the patient to move around. In addition, DeVito shows a wireless EEG headband device that includes an amplifier mounted on the headband. It would have been obvious to modify the above combination to use such a headband, as it is merely the substitution of one known equivalent EEG electrode device for another.

Claims 48-50 and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al 4800803 in view of Zimmerman et al 5279305 and Devito. Ross et al shows a device with an active electrode 1a, 1b, 1c producing EEG signals, a filter 28 producing signals in a desired, predetermined frequency range, and a tone generator 23

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producing an audio output, music, corresponding to the EEG signal. It does not have the connection means or the telemetry signal. Zimmerman et al teaches that it is desirable to have the electrode arrangement wirelessly communicate with the processor to allow the user freedom of movement during measurement. Hence, it would have been obvious to modify Lee to use wireless communication, so as to allow the patient to move around. In addition, DeVito shows a wireless EEG headband device that includes an amplifier mounted on the headband. It would have been obvious to modify the above combination to use such a headband, as it is merely the substitution of one known equivalent EEG electrode device for another.

Claim 51 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al 4800803 in view of Zimmerman et al 5279305 and Devito, as applied to claims 48-50 and 68 above, further in view of Yashushi et al 5241967. Yashushi further teaches that a desired level for inducing a particular brain state is one of alpha, theta, delta and beta brain wave states. Hence, it would have been obvious to modify the above combination to filter at one of these bands, as they are well known bands used to produce the desired brain wave state.

Claims 52, 54, 55, and 65-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zimmerman et al 5279305 in view of DeVito 6001005. Zimmerman shows an EEG processing system including EEG electrodes 16, amplifiers 24 connected to the electrodes amplifier, a radio transmitter 66 connected to the amplifiers, which broadcasts the amplified brain wave signal to a remote receiver 78. Zimmerman further has an output device for outputting the brain wave signal so that the operator

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may diagnose brain dysfunction (see column 8, lines 28-41). In does not have the attachment means. De Vito shows an alternate EEG determining system that includes a headband with electrodes 23-25 mounted thereon, and the transmitter mounted thereon as well. As such, it would have been obvious to modify Zimmerman to use such an attachment means, as it is merely the substitution of one known EEG measuring device for another. Claim 54 is rejected in that the headband is a "patch" and the electrodes 23, 24, and 25 include a positive and negative electrode. In addition, it is inherent that there is a ground. Claim 66 is rejected in that applicant has not stated that the specific number of electrode and amplifiers is for a specific purpose or that they solve a stated problem. As such, it appears that the exact number of electrodes and amplifiers would have been a mere matter of design choice for one skilled in the art.

Claim 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zimmerman et al in view of DeVito, as applied to claims 52, 54, 55, and 65-66 above, further in view of Roy et al 3696808. Roy shows an EEG monitoring system that provides an output signal indicating that a brain injury is detected. As such, it would have been obvious to modify the above combination to provide an output when brain injury is detected. The examiner notes that nay output is a "warning," especially since applicant has provided no limiting definition of the term warning. Hence, it would have been obvious to modify Roy to use the circuit of De Vito, as it is merely the substitution of one known EEG monitoring circuit for another.

Claim 59 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zimmerman et al in view of DeVito, as applied to claims 52, 54, 55, and 65-66 above,

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further in view of Lee 4454886. The combination provides a graphic output of the brain waves. Lee teaches that an audible output based on the brain waves is better as it allows the physician to immediately identify changes in the brain wave signals and it is easier to understand than a complex waveform. As such, it would have been obvious to modify the above combination to use an audible output, to simplify analysis of the brain waves.

Claims 45-47 are allowed. Claims 45-47 define over the art of record in that none of the art compares the F ratio in the presence and absence of stimulation with control data to diagnose injury or dysfunction of the spinal cord, brain stem, or brain, as claimed.

Applicant's arguments filed 18/5/2005 have been fully considered but they are not found to be persuasive.

With respect to the rejection of claims 48-50, 59, and 68 over Lee in view of Zimmerman and DeVito, applicant has asserted that Lee only transmits a segmented and replicated version of the brain waves, while applicant transmits the entire brain wave. The examiner notes that the claim only calls for a broadcast signal "based on" the brain waves. Lee's signal is indeed based on the brain waves.

With respect to the rejection of claims 48-50, 59, and 68 base don Ross in view of Zimmerman and DeVito, applicant has asserted that the present invention analyzes brain waves, while Ross is a training system that trains the user to produce a desired brain wave frequency. The examiner notes that Ross receives the brain wave signal

and processes the received signal in integrating means 22, which analyzes the EEG signal.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert L. Nasser whose telephone number is (571) 272-4731. The examiner can normally be reached on Mon-Fri, variable hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on (571) 272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Robert L. Nasser
Primary Examiner
Art Unit 3736

RLN
November 12, 2005

A handwritten signature in black ink, appearing to read "Robert L. Nasser", written in a cursive style.

ROBERT L. NASSER
PRIMARY EXAMINER